



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,038	07/17/2001	Klaus Hohn	12406-017001	9454
7590 08/31/2005			EXAMINER	
Fish & Richardson 225 Franklin Street Boston, MA 02110-2804			DINH, TUAN T	
			ART UNIT	PAPER NUMBER
			2841	

DATE MAILED: 08/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/830,038

Applicant(s)

HOHN ET AL.

Examiner

Tuan T. Dinh

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 27-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 27-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

The request filed on 06/20/05 for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/830,038 is acceptable and a RCE has been established. An action on the RCE follows.

Claim Objections

1. Claim 32 is objected to because of the following informalities:

Claim 32, line 2, it is confuse because the applicant recited the term "can be" is render claimed, and that limitation is defined no positive structure.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7, 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berger (U.S. Patent 4,030,948) in view of Prior Art of figure 2 (hereafter PA.

Regarding claims 1-7, 27, and 33, Berger discloses an electronic component (10) having a body (12, see figure 1, column 3, line 6), the component (10) has at least one metallic solder area (30, 32), see column 3, lines 28-30, and in the surface (top and side

surface of the body 12) of the body (12), except for the metallic solder area (30, 32), is at least partially covered by an anti-solder coating (34), the coating preventing solder adherence to the coating, see column 3, lines 38-67, column 4, lines 14-66, and column 5, line 2, column 6, lines 12), the coating consists essentially of siloxane or poly-siloxane, see column 5, line 2, and column 6, line 12.

Berger does not explicitly disclose the component being an electro-optical or a LED component having a plastic body/housing.

PA shows a LED component (1), which is an electro-optical component as shown in figure 2 having a plastic body/housing.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a component being a LED having a plastic body as taught by PA to modify the component of Berger for the purpose of receiving/transmitting signals, less weight, and low cost for manufacturing.

Regarding claims 28 and 33, Berger discloses an electronic component (10) having a body (12), see column 3, line 6, which is unsoldered component (figure 1, column 3, lines 3-4), the component (10) has at least one metallic solder area (30, 32), see column 3, lines 28-30, in the surface (top and side surface of the body 12) of the body (12), except for the metallic solder area (30, 32), is at least partially covered by an anti-solder coating (34), the coating preventing solder adherence to the coating, see column 3, lines 38-67, column 4, lines 14-66, and column 5, line 2, column 6, lines 12).

Berger does not explicitly disclose the component being an electro-optical component having a plastic body/housing.

PA shows a LED component (1) as shown in figure 2 having a plastic body/housing.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a component having a plastic body as taught by PA to modify the component of Berger for the purpose of receiving/transmitting signals, less weight and low cost for manufacturing.

Regarding claims 29 and 33, Berger discloses an electronic component (10) having a body (12), see column 3, line 6, the component (10) has at least one metallic solder area (30, 32), see column 3, lines 28-30, in the surface (top and side surface of the body 12) of the body (12), except for the metallic solder area (30, 32), is at least partially covered by an anti-solder coating (34) prior to soldering of the component (10), the coating preventing solder adherence to the coating, see column 3, lines 38-67, column 4, lines 14-66, and column 5, line 2, column 6, lines 12).

Berger does not explicitly disclose the component, which is an electro-optical component having a plastic body/housing.

PA shows a LED component (1) as shown in figure 2 having a plastic body/housing.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a component having a plastic body as taught by PA to modify the component of Berger for the purpose of receiving/transmitting signals, less weight and low cost for manufacturing.

Regarding claims 30, 33, Berger discloses an electronic component (10) having a body (12), see column 3, line 6, the component (10) has at least one metallic solder area (30, 32), see column 3, lines 28-30, in the surface (top and side surface of the body 12) of the body (12), except for the metallic solder area (30, 32), is at least partially covered by an anti-solder coating (34), the coating preventing solder adherence, see column 3, lines 38-67, column 4, lines 14-66, and column 5, line 2, column 6, lines 12), the component is apart from any support structure (i.e. the component is not connected to substrate or board, see figure 1).

Berger does not explicitly disclose the component, which is an electro-optical component having a plastic body/housing.

PA shows a LED component (1) as shown in figure 2 having a plastic body/housing.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a component having a plastic body as taught by PA to modify the component of Berger for the purpose of receiving/transmitting signals, less weight and low cost for manufacturing.

Regarding claims 31, 33, Berger discloses an electronic component (10) having a body (12), see column 3, line 6, the component (10) has at least one metallic solder area (30, 32), see column 3, lines 28-30, in the surface (top and side surface of the body 12) of the body (12), except for the metallic solder area (30, 32), is at least partially covered by an anti-solder coating (34), the coating preventing solder adherence, see column 3, lines 38-67, column 4, lines 14-66, and column 5, line 2, column 6, lines 12),

wherein the coating has an end, and the coating ends at the component (the coating 34 has an end at a bottom surface 16 of the body 12, see figure 1).

Berger does not explicitly disclose the component, which is an electro-optical component having a plastic body/housing.

PA shows a LED component (1) as shown in figure 2 having a plastic body/housing.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a component having a plastic body as taught by PA to modify the component of Berger for the purpose of receiving/transmitting signals, less weight and low cost for manufacturing.

4. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berger in view of PA, and further in view of Schmid (U.S. Patent 6,006,512).

Regarding claim 32, Berger and PA do not explicitly show the coating applied to the plastic housing from a hydrous solution.

Schmid teaches a protective coating (16) that apply on a housing from a hydrous solution (10), see figures 1-4.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a coating made from hydrous solution as taught by Schmid employed in the component of Berger and PA in order to provide less time and low cost for manufacture.

Response to Arguments

5. Applicant's arguments with respect to claims 1-7, and 27-33 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues:

(a) Berger does not disclose "an anti solder coating preventing solder adherence to the coating."

Examiner disagrees because in figures 1-2 of the Berger reference, the coating material (34) is adhesive tenaciously to the surface of the device (the body of the device (10) made of crystal semiconductor material, see column 3, lines 6-7) and high resistances that prevent and protect the surface of the device, the figures 1-2 do not show a solder splash adhesive to the surface of the coating (34).

(b) Berger's coating cannot be combined with the plastic housing in PA because Berger's coating are cured at high temperatures.

Examiner disagrees because even though the Berger's coating cured at high temperature, but in the instant application, which is silent regarding the melting point of the plastic material of the housing in PA, and also the claims do not claimed the melting point of the plastic material. The siloxane or the polysiloxane are cured at the high temperature than the crystal semiconductor material, and the crystal semiconductor has the melting point higher than the plastic material. Therefore, the coating of Berger can be applied on the surface of the plastic material of housing in PA.

(d) Berger's coating cannot be combined with the plastic housing in PA because Berger's coating is opaque.

Examiner disagrees because even though the coating is opaque, but when the coating coated on the surface of the device only at least partially but not entire the surface of the device. Thus, the coating does not effect or block any signals when the LED does function to receive or transmitted signals.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Dinh whose telephone number is 571-272-1929. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammie Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tuan Dinh
August 25, 2005.